



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/501,408	02/10/2000	Frederic Serre	A32979-070337.0181	3806

21839 7590 06/06/2005

BURNS DOANE SWECKER & MATHIS L L P
POST OFFICE BOX 1404
ALEXANDRIA, VA 22313-1404

EXAMINER

SHOSHO, CALLIE E

ART UNIT	PAPER NUMBER
----------	--------------

1714

DATE MAILED: 06/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/501,408

Applicant(s)

SERRE, FREDERIC

Examiner

Callie E. Shosho

Art Unit

1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 2/28/05.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 23-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 23-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. It is noted that in the last amendment to the claims filed 7/14/03, applicant used incorrect status identifiers. Specifically, applicant indicated claims 1-13 as "Previously Cancelled" and claims 14-22 as "Currently Cancelled". However, it is noted that the proper status for claims 1-22 is "Cancelled".

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 23-25 and 29-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Segatta et al. (U.S. 6,776,206)

The rejection is adequately set forth in paragraph 3 of the office action mailed 11/4/04 and is incorporated here by reference.

4. Claims 26-27 and 32-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Segatta et al. in view of JP 09302146 as applied to claims 23-25 and 29-31 above, and further in view of Takeichi et al. (U.S. 6,008,295).

The rejection is adequately set forth in paragraph 4 of the office action mailed 11/4/04 and is incorporated here by reference.

5. Claims 26, 28, 32, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Segatta et al. in view of JP 09302146 as applied to claims 23-25 and 29-31 above, and further in view of Fukahori et al. (U.S. 5,844,050).

The rejection is adequately set forth in paragraph 5 of the office action mailed 11/4/04 and is incorporated here by reference.

Response to Arguments

6. Applicant's arguments have been fully considered but they are not persuasive.

Specifically, applicant argues that there is no disclosure in Segatta et al. of composition comprising natural rubber, carbon black, silica, and additional diene elastomer as argued by examiner. Applicant argues that there is nothing in Segatta et al. which would motivate one skilled in the art to use blend of carbon black and silica.

However, it is noted that col.3, lines 50-65 of Segatta et al. discloses that it is readily understood by those having skill in the art that the rubber composition would be compounded by methods generally known in the rubber compounding art such as mixing the composition with commonly used additive materials including processing additives such as silica and reinforcing materials such as carbon black. It is further disclosed that as known to those skilled in the art, depending on the intended use, the additives are selected and commonly used in conventional amounts. Additionally, it is noted that Segatta et al. disclose that typical additions of carbon black comprise about 20-200 phr while silica is used in amount of 5-25 phr. Further, attention is drawn to col.6, lines 47-50 of Segatta et al. which discloses the use of mixture of carbon black

and silica. Thus, depending on the end use of the rubber composition, it would have been within the skill level of one of ordinary skill in the art to choose the use of one more additives.

In light of the above, it would have been obvious to one of ordinary skill in the art to use of one or more additives, including carbon black and silica or silica alone, in Segatta et al. depending on the end use of the rubber composition.

Applicant also argues that JP 09302146 is not a relevant reference against the present claims given that JP 09302146 discloses the use of silica and/or carbon black in amounts outside the scope of the present claims.

However, it is noted that JP 09302146 is not used for its teaching of amounts of carbon black and silica. This is already disclosed by Segatta et al. Rather, JP 09302146 is used only to teach surface area of carbon black and silica.

Additionally, it is noted that JP 09302146 is used as teaching reference, and therefore, it is not necessary for this secondary reference to contain all the features of the presently claimed invention, *In re Nievelt*, 482 F.2d 965, 179 USPQ 224, 226 (CCPA 1973), *In re Keller* 624 F.2d 413, 208 USPQ 871, 881 (CCPA 1981). Rather this reference teaches a certain concept, namely, surface area of carbon black and silica when carbon black and silica are utilized in rubber composition for tire, and in combination with the primary reference, discloses the presently claimed invention.

Applicant also argues that data set forth in the present specification provides unexpected or surprising results over the cited prior art.

However, it is the examiner's position that the data is not persuasive in providing unexpected or surprising results over the cited prior art for the following reasons:

Tables 1 and 2 of the present specification compare composition within the scope of the present claims, i.e. comprising 40 phr carbon black and silica, with composition outside the scope of the present claims but within the scope of Segatta et al., i.e. comprising 55 phr carbon black and silica. It is shown that the composition of the present invention is superior in terms of higher break and tearability indices.

However, the data is not persuasive given that there is not proper side-by-side comparison between composition within the scope of the present claims and composition outside the scope of the present claims. Specifically, Test 1 and Test 2 utilize carbon black N330 while Test 3 utilizes carbon black N347. It is not clear what, if any, difference there is between these carbon blacks. Further, Test 1 and Test 2 contain different types and amounts of covering agents. Additionally, Test 1 and Test 2 utilize much higher amount of silica and much lower amount of carbon black than Test 3. While it is recognized that the total amount of carbon black and silica must be varied to amount outside the scope of the present claims for comparison with inventive examples, it is not clear what difference would occur as a result of the large difference in the amount of carbon black utilized in Test 1 and Test 2 as compared to used in Test 3. That is, would the results be the same if Test 3 utilized 35 phr silica and 10 phr carbon black? Thus, it is not clear if the differences between the inventive composition and the comparative composition are due to the amount of carbon black and silica utilized or to the differences in the type and/or amount of carbon black and silica covering agent utilized.

Applicant also points to Test 4 control example. This data compares composition within the scope of the present claims, i.e. comprising carbon black and silica, with composition outside the scope of the present claims, but within the scope of Segatta et al., i.e. comprising carbon black only. It is shown that presently claimed composition is superior in terms of higher break and tearability indices.

However, the data is not persuasive given that there is not proper side-by-side comparison between composition within the scope of the present claims and composition outside the scope of the present claims. Specifically, Test 1 and Test 2 examples utilize more zinc oxide and antioxidant and less stearic acid than Test 4 control example. Thus, it is not clear if the differences between the inventive composition and the comparative composition are due to the amount of carbon black and silica utilized or to the differences in the type and/or amount of zinc oxide, antioxidant, and stearic acid utilized.

For claims 29-31, applicant points to Table 5-6 of the present specification which compare composition within the scope of the present claims, i.e. comprising only silica, with composition outside the scope of the present claims but within the scope of Segatta et al., i.e. comprising only carbon black. It is shown that the inventive composition is superior in terms of elongation at break.

However, the data is not persuasive given that there is not proper side-by-side comparison between composition within the scope of the present claims and composition outside the scope of the present claims. Specifically, Test 18 utilizes 100 parts natural rubber, Test 19 utilizes 100 parts cis-polyisoprene and Test 20 utilizes 60 natural rubber and 40 cis-1,4-butadiene rubber. Thus, it is not clear if the differences between the inventive composition and the

comparative composition are due to use of silica or to the differences in the type of elastomer utilized.

Applicant argues that Takeichi et al. is not a relevant reference against the present claims given that there is no disclosure in Takeichi et al. of elastomeric composition comprising silica in amount of 20-35 phr or blend of silica and carbon black in amount of 20-45 phr and further, given that there is no motivation to combine Segatta et al. with Takeichi et al.

However, Takeichi et al. is used as teaching reference, and therefore, it is not necessary for this secondary reference to contain all the features of the presently claimed invention, *In re Nievelt*, 482 F.2d 965, 179 USPQ 224, 226 (CCPA 1973), *In re Keller* 624 F.2d 413, 208 USPQ 871, 881 (CCPA 1981). Rather this reference teaches a certain concept, and in combination with the primary reference, discloses the presently claimed invention.

Further, it is the examiner's position that there is motivation to combine Segatta et al. with Takeichi et al. given that Takeichi et al. disclose the use of silicone or tin halide modified diene elastomers in rubber compositions and further given that Takeichi et al. disclose that the motivation for using such diene elastomers is to produce rubber composition with superior fracture properties and low hysteresis loss.

Applicant also argues that Fukahori et al. is not a relevant reference against the present claims given that there is no disclosure in Fukahori et al. of elastomeric internal filler mix comprising silica or blend of carbon black and silica as presently claimed.

However, it is noted that Fukahori et al. disclose that the rubber composition is for tires wherein the composition is suitable not only for external parts of the tire but also for bead portion, i.e. internal portion, of the tire. Thus, Fukahori et al. is clearly suitable for use in both external and internal portion of tire.

Additionally, it is noted that Fukahori et al. disclose using the diene elastomer modified with branching agent in order to produce composition with good abrasion resistance, fatigue resistance, and tensile properties.

Thus, given that Fukahori et al. disclose that the rubber composition is suitable for use in internal portion of the tire and given that Fukahori et al. provide motivation for using the modified diene elastomer, it is the examiner's position that there is proper motivation to combine Segatta et al. with Fukahori et al.

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

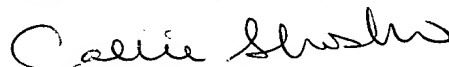
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Art Unit: 1714

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 571-272-1123. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Callie E. Shosho
Primary Examiner
Art Unit 1714

CS
5/27/05